F.C.C. Narrative Statement for FORM 442

File Number: 1381-EX-CN-2022

Beamlink, Inc. and Ascent Integrated Tech, Inc. will be conducting a joint technology development project regarding cellular communications technologies for use in long-range and building penetrating communications devices for firefighters and military operators using LTE private network technology and lightweight base station equipment.

Description of equipment: 1x Beamlink experimental LTE base station containing a bladeRF micro 2.0 xA4 radio with 2x BT-100 and 2x BT-200 amplifiers manufactured by Nuand.

Specific objectives to be accomplished:

- Test integration into communications pack manufactured by Ascent Integrated Tech with Beamlink experimental LTE base station
- Test link speed and range of Beamlink experimental LTE base station
- Test realistic communications scenarios over LTE, ensuring link speed and latency are sufficient for Ascent Integrated Tech application including sending high-rate sensor data across the link
- Test both uplink and downlink connectivity even while the mobile unit is moving or behind obstacles.
- Evaluate power draw and feasibility of integrating Beamlink experimental LTE base station into future Ascent Integrated Tech, Inc. products

Program of experimentation will contribute to the radio art by solving the challenging problem of having data capable RF communications with first responders and military operators in challenging environments. One use case is when firefighters respond to structure fires and must rely on old voice-only communications technologies. By testing new high data-rate and low latency RF communications through creating an LTE private network for each incident, firefighters would be able to carry biometric and location-tracking sensors into the structure, keeping them safe and allowing the commanders to monitor their team in real time, a technology that has never been demonstrated before.